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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,301	01/23/2002	James G. Sheek	27475/07001	7562

24024 7590 05/05/2004

CALFEE HALTER & GRISWOLD, LLP  
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CLEVELAND, OH 44114

EXAMINER

ZIMMERMAN, JOHN J

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/055,301	<b>Applicant(s)</b> SHEEK ET AL.	
	<b>Examiner</b> John J. Zimmerman	<b>Art Unit</b> 1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20040116</u>  | 6) <input type="checkbox"/> Other: _____                                    |

## SECOND OFFICE ACTION

### *Amendments*

1. This Office Action is in response to the Amendment received February 6, 2004. Claims 1 and 3-18 are pending in this application.

### *Information Disclosure Statement*

2. The Supplemental Information Disclosure Statement received January 16, 2004 has been considered. An initialed form PTO-1449 is enclosed with this Office Action.

### *Claim Objections*

3. Claim 17 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 17 does not appear to further limit claim 15.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1, 8, 10-12 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Naik (U.S. Patent 4,919,773).

6. Naik discloses an article having a graded/transitioned layer from a layer of a metal to a hard outer layer compound of the metal, e.g. boride, carbide, nitride or oxide of a Group III to Group VI metal, (e.g. see paragraph spanning columns 6 and 7). A metallic interlayer, e.g. palladium, platinum, nickel, chromium, etc. . . , can used (e.g. see column 5, lines 17-40). Various deposition processes may be used (e.g. see column 5, line 41 - column 6, line 34; CVD, PVD, etc. . . ). Regarding the limitation in the claims that article must have a substantially transparent transition layer superimposed on a metal color bearing layer, Naik clearly provides for a transition layer culminating in a hard outer layer of aluminum oxide (see example 4 in the table in column 7). Aluminum oxide is substantially transparent and colorless to visible light. The rejected claims recite that the exterior first composition is a composition "comprising a metal" and since aluminum oxide comprises aluminum, Naik meets the limitations of the rejected claims. The term "comprising" allows for any additional unspecified constituents in a composition - even in major amounts, *Ex parte Davis et al.*, 80 U.S.P.Q. 448 (PTO Bd. App. 1948).

7. Claims 1, 3-4, and 7-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Randhawa (U.S. Patent 5,037,517).

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8. Randhawa discloses an article having a transparent layer of about 25-50 angstroms and two graded/transitioned layers (e.g. see Figure 3; claims 1-9; column 3, line 67 - column 4, line 44). One composition can be gold and another layer can be zirconium and/or zirconium carbonitride (e.g. see Table I). Although it is noted that applicant discloses that the first composition is exterior, Randhawa clearly discloses that the gold outer layer (10) will wear away and expose the transparent layer (16) which in turn will allow for the color layer (14) to show through (e.g. see column 3, line 67 - column 4, line 11). The examiner also notes that since the layered article of Randhawa is made in sequential coating steps, the intermediate article of Randhawa before the final gold coating step would anticipate the claimed article. Nontransitory intermediate articles in the prior art are actual physical articles that exist during production and therefore they can be used to reject claims. Thus, the transparent layer (16) of Randhawa will be the exterior layer after wearing of the initial gold outer layer and also during the manufacture of the article.

***Allowable Subject Matter***

9. Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not disclose or make obvious the use of the claimed first compositions of these claims in the manner described in independent claim 1. Allowable subject matter having been indicated, applicant should submit formal drawings at this time.

***Response to Arguments***

10. Applicant's amendments and arguments filed February 6, 2004 have been fully considered and have removed most of the previously presented rejections. The amendments and arguments, however, are not persuasive with regards to the remaining rejections.

11. Regarding the rejection of claims 1, 8, 10-12 and 14-17 under 35 U.S.C. 102(b) as being anticipated by Naik (U.S. Patent 4,919,773), applicant argues that the amendments to the claims has removed this rejection because the outer composition of Naik would not be transparent. The examiner notes, however, that Naik clearly provides for a transition layer culminating in a hard outer layer of aluminum oxide (see example 4 in the table in column 7). Aluminum oxide is substantially transparent and colorless to visible light. The rejected claims recite that the exterior first composition is a composition "comprising a metal" and since aluminum oxide comprises aluminum, Naik meets the limitations of the rejected claims. The term "comprising" allows for any additional unspecified constituents in a composition - even in major amounts, *Ex parte Davis et al.*, 80 U.S.P.Q. 448 (PTO Bd. App. 1948).

12. Regarding the rejection of claims 1, 3-4, and 7-18 under 35 U.S.C. 102(b) as being anticipated by Randhawa (U.S. Patent 5,037,517), applicant argues that the outer gold layer of Randhawa is not transparent. The examiner notes, however, that Randhawa clearly discloses that the gold outer layer (10) will wear away and expose the transparent layer (16) which in turn will allow for the color layer (14) to show through (e.g. see column 3, line 67 - column 4, line 11). The examiner also notes that since the layered article of Randhawa is made in sequential coating

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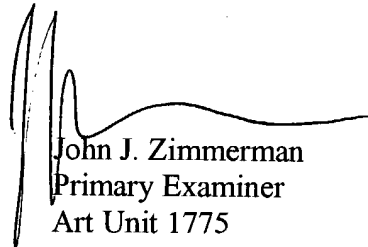
steps, the intermediate article of Randhawa before the final gold coating step would anticipate the claimed article. Nontransitory intermediate articles in the prior art are actual physical articles that exist during production and therefore they can be used to reject claims. Thus, the transparent layer (16) of Randhawa will be the exterior layer after wearing of the initial gold outer layer and also during the manufacture of the article.

### ***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (571) 272-1547. The examiner can normally be reached on 8:30am-5:00pm, M-F. Supervisor Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John J. Zimmerman  
Primary Examiner  
Art Unit 1775

jjz  
April 29, 2004